



Idaho Honey Bees and Bears

How Honey Bee Producers Can Avoid Damage by Bears and What To Do If Damage Occurs



photo courtesy of Chuck Bartlebaugh, Center for Wildlife Information

Honey Bees in Idaho

In recent years 100 to 150 operators annually have produced honey in Idaho. Reported incidents causing damage to hives accounted for an average of nine incidents per year statewide over the last several years. A recent survey of honey producers conducted by Idaho Department of Fish and Game found that reported damage to hives and honey averaged approximately \$1,900 per year per producer, but ranged from \$ 0 – \$12,000. However, actual claims for depredation reimbursement averaged less than one per year. Under Idaho law, honey is listed as a crop and is therefore eligible for damage protection and reimbursement. The law also requires producers to take all reasonable steps to prevent property damage. This information is intended to help honey producers understand what they can do to avoid or at least to reduce bear problems, and what to do if damage occurs.

How to Avoid Damage to Hives

Bee Yard Location: Avoid placing apiaries along major bear travel corridors such as river bottoms and saddles, or near attractants such as dumps, animal carcass disposal sites, berry fields, orchards (in the fall), and other areas with obvious bear foods. Research has shown placing apiaries at least 100 yards away from forested areas or ravines may also reduce incidents with bears. Avoid placing fencing under branches as they may fall on or touch the fence after rain or wind.



Electric Fences: Solar-charged or 110-volt electric fencing is one of the most effective methods to reduce black bear damage. An electric fence must be well grounded, sufficiently charged at all times, and maintained on a regular basis.

Permanent and Semi-permanent Electric Fences (INSERT SIDE A) can be made from multiple strands of electric wire or woven wire attached to wood, steel or fiberglass posts. An electric or solar charger, an energizer and a battery are required to charge the fence. One example of an effective permanent electric fence measures 50X50 feet (often smaller) and costs approximately \$1,200.

Temporary Electric Fences (INSERT SIDE B) are also effective. A temporary 30X42 foot electric fence can hold 32 colonies and costs approximately \$300. A woven-wire electric fence is built with nine steel T-posts driven vertically into the ground. If the soil is sandy or soft and wet, substitute wooden posts in the corners.

Put 1 ½ inch PVC pipe over the steel posts as an insulator. Secure 32-inch high woven wire 6-8 inches above the ground outside the enclosure. Use a loop of baling wire at the top and bottom of the wire to attach it to the PVC pipe. Four strands of high tensile wire, spaced at 6, 16, 28, and 40 inches above the ground, can be used instead of woven wire. Place an energizer cut-off switch on one of the posts to allow easier access to the hives.



photo courtesy of Chuck Bartlebaugh, Center for Wildlife Information

More on Fences: Other temporary fences can be constructed with electro-plastic netting, electrified twine or hot tape attached to posts or trees. Costs range from \$200 for fences using hot tape to \$750 for electro-plastic netting.

Key features of fence design are strand spacing, energizer type and grounding effectiveness. Wire strands on a permanent fence should be no more than 8 inches apart, and no more than 12 inches apart on a temporary fence. For both types, the bottom wire should be no more than 8 inches above the ground. The top wire does not need to be more than 3 ½ feet high.

A New Zealand style energizer provides a stronger shock (at least 4,000 to 5,000 volts is needed) than a strip grazing energizer. It also decreases maintenance by reducing the need to clip vegetation growing under the fence. Ground the energizer by connecting it with a wire and a ground connector clamp to a half-inch by 6-foot rod driven into the ground.

A chicken-wire mat 3 feet wide can be placed around the perimeter of the fence to ensure that the bear is grounded when it touches the fence. Connect the chicken wire to the grounding rod and pin it to the ground to prevent wind from blowing it into the fence. The chicken-wire mat is difficult to pick up if beehives are moved frequently or if a lot of vegetation grows through it. Under these conditions, as well as when livestock are present, the mat can be omitted.



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To protect the energizer and battery from theft and from damage by animals, place them inside the fence. To provide additional protection against theft, put them in a hive body modified to exclude bees. Place active hive bodies above the one containing the electronic equipment.

Although bears seldom break through a properly constructed and maintained electric fence, some failures have occurred when hives were placed close to the fence. Therefore, locate beehives at least three feet from the fence.

Summary of Fencing Tips: 1) Electric fencing has been shown to be an effective deterrence for bears. 2) However, fencing should be placed prior to having bear problems for it to be most effective at preventing damage. 3) Electric fencing requires maintenance to assure effectiveness and should be checked each time the hives are visited. Grasses or branches will ground out the fence and make it ineffective. Using herbicides to kill the grasses around the fencing may be best unless vegetation is removed by hand or by using a mower or weed whacker. 4) Grounding rods may be less effective if the soils are dry. On dry soils, use a wire mesh attached to the ground rod to assure a better grounding connection. 5) Check the charge each time you visit the apiary, and carry a fresh battery with you to replace the used battery if it is low. You will lose protection if you have to charge the battery or if the battery runs down before you recheck it.

Elevated platforms work well especially in

conjunction with fencing. However they are relatively expensive, difficult to move, present difficulties when working with colonies, and are not practical in some cases. Platforms can be wood or steel and should raise the colonies at least 8 feet above the ground. Black bears are excellent climbers, so install a 2-foot overhang around the edges of the platform.

Idaho Fish and Game Can Help

Contact your local Fish and Game regional office to find out what materials and supplies can be provided by the Department. Typically, Fish and Game can provide most of the fencing materials and rely on the producer or landowner to build and maintain the fence. Make sure you contact the Department prior to having bear problems.

Trapping and Removal

When preventive methods fail, it may be necessary to trap the bear and remove it from the area. This often involves relocating the animal to an area where it is less likely to cause further damage.

Relocating bears is expensive and it is difficult to find suitable release sites. Relocated bears often create problems at their new locations and occasionally return to their capture site and cause further damage. When relocation is not a viable option, the bear is destroyed. Trapping and removal must be done in cooperation with Wildlife Services or IDFG after other control methods have failed to reduce bear damage. Relocation should not be the first option selected.

Aversive Conditioning

Aversive conditioning involves associating a negative experience with a food, area or event to develop future avoidance. Taste aversion chemicals have not been very effective.

A second method involves wildlife personnel capturing bears near beeyards with foot snares and then tranquilizing, handling and releasing them at the capture site. This technique is difficult to employ, but research has shown it may be successful in some situations.

Also, releasing hounds on the track of a depredating bear and chasing the bear a long distance has also proven effective on occasion. Local houndsmen are often very eager to help in these situations.

What to do when damage occurs.

1. When a bear on private land has damaged an apiary and honey is lost, the **producer or landowner should immediately contact a Wildlife Services (WS) official to investigate as well as the Fish and Game Department (IDFG) for notification purposes.** WS will respond as soon as possible, but within 72 hours as per Idaho law. WS will determine if the loss is from a black bear and determine the extent of loss without assigning a monetary value. **If WS has determined a loss due to bears, the landowner or beekeeper must then again contact IDFG to begin the damage claim process.** The landowner must provide IDFG with this damage report from WS. Again, if compensation is to be paid, the beekeeper must show that he has taken prior precautions and has worked with IDFG to reduce potential conflicts with bears. The state law does not cover depredation problems on public land.
2. Landowners who have worked with the Department to prevent bear damage, yet still experience losses, may be eligible to file a damage claim and receive compensation for their losses. Damage claim forms are available from a Landowner/Sportsman Coordinator or at a regional Fish and Game Office.

Phone numbers to call for information or to report damage:

Statewide: WS – 1-800-487-3297 or by region as follows:

Panhandle Region:	WS – 208-378-5077	IDFG – 208-769-1414
Clearwater Region:	WS – 208-378-5077	IDFG – 208-799-5010
McCall Subregion:	WS – 208-378-5077	IDFG – 208-634-8137
Southwest Region:	WS – 208-378-5077	IDFG – 208-465-8465
Magic Valley Region:	WS – 208-934-4354	IDFG – 208-324-4350
Southeast Region:	WS – 208-236-6921	IDFG – 208-232-4703
Upper Snake Region:	WS – 208-236-6921	IDFG – 208-525-7290
Salmon Region:	WS – 208-934-4354	IDFG – 208-756-2271

IDFG Website: www2.state.id.us/fishgame



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This publication will be made available in alternative formats upon request. Please contact the Idaho Department of Fish and Game for assistance.

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